CALIFORNIA BUILDING STANDARDS COMMISSION 2525 Natomas Park Drive, Suite 130 Sacramento, CA 95833 (916) 263-0916 FAX (916) 263-0959



December 15, 2010

John D. Kuehl, Building Official City Hall City of Pacific Grove 580 Pacific Street Monterey, CA 93940

Dear John Kuehl,

This is to acknowledge receipt of the City of Pacific Grove submittal pertaining to Ordinance Number 10-029 with findings on December 6, 2010. As the law states, no local modification or change to the California Building Standards Code (Code) shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission (the Commission).

As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing. If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

Jane G. Taylor Senior Architect

cc: Chron

Local Filings



#### **BUILDING SAFETY & INSPECTION**

November 30, 2010

California Building Standards Commission Executive Director 2525 Natomas Park, Suite 130 Sacramento, CA 95833

**RE:** Code Adoption

2010 California Building Codes

To whom it may concern:

Enclosed please find City of Pacific Grove Ordinance 10-029 with Amendments and Staff Report. These new codes were adopted by the City on November 3rd, 2010.

Please contact our office at 831.646.3890 with any questions.

Sincerely,

John D. Kuehl Building Official

JDK:lf

Enc:

Ordinance No.10-029 with Amendments and Findings

Staff Report

#### ORDINANCE NO. 10-029

## AN ORDINANCE OF THE CITY OF PACIFIC GROVE AMENDING CHAPTERS 18.04 AND 18.32 OF THE PACIFIC GROVE MUNICIPAL CODE REGARDING THE ADOPTION OF BUILDING AND RELATED INTERNATIONAL CODES

WHEREAS, pursuant to Sections 17922, 17958, 17958.5 and 17958.7 of the California Health and Safety Code, the City of Pacific Grove ("City") may adopt the provisions of the International Building Code, the Plumbing Code, the Mechanical Code, the Fire Code, the Housing Code, and the National Electrical Code, to protect the health, welfare and safety of the citizens of Pacific Grove because of local climatic, geological, topographical, and Environmental conditions; and

WHEREAS, this Ordinance is found to be categorically exempt from environmental review, per the provisions of Section 15061(b)(3) of the California Environmental Quality Act ("CEQA") of 1970, as amended; and

WHEREAS, the City Council finds that that the current City of Pacific Grove green building program, as compared to Title 24, Part 11 also known as Cal Green, is more restrictive; and

WHEREAS, in accordance with state law, local jurisdictions can incorporate additional regulations that address special circumstances in the community or area provided that they are at least as restrictive as the statewide codes.

# NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF PACIFIC GROVE:

SECTION 1. The City Council finds each recital set forth above to be true and correct, and by this reference incorporates each as an integral part of this Ordinance.

SECTION 2. Section 18.04.010 of the Pacific Grove Municipal Code is amended by deleting the current Section 18.04.010 in its entirety and replacing it with the text set forth below as follows:

18.04.010 Adoption of Building Codes.

Except as otherwise amended by this Chapter and Chapter 18 of the Pacific Grove Municipal Code, the following amended Model Codes are hereby adopted by reference and are incorporated in this chapter as if fully set forth herein:

## ARTICLE 1 – GENERAL PROVISIONS

Pursuant to Government Code Sections 50020 et seq., and the charter powers of the City of Pacific Grove, the following amended Model Codes are hereby adopted by reference as if set forth fully herein:

- 1. 2010 California Building Code And Appendices I and J;
- 2. 2010 California Historic Building Code;
- 3. 2010 California Existing Building Code;
- 4. 2010 California Residential Code;
- 5. 2010 California Plumbing Code;
- 6. 2010 California Electric Code;
- 7. 2010 California Mechanical Code;
- 8. 2010 California Fire Code And Appendices A-J;
- 9. 2006 International Property Maintenance Code

#### ARTICLE 2 – BUILDING CODE

Division 1—Amendments to the 2010 California Building Code

Section 105.3.2 is hereby amended to read as follows:

105.3.2 Expiration of Plan Review. Applications for which no permit is issued within 180 days following the date of the application shall expire, and plans and other data submitted for review shall thereafter be returned to the applicant or destroyed by the building official. The building official may extend the time for action by the applicant for a period not exceeding 180 days on written request by the applicant showing that circumstances beyond the control of the applicant have prevented action from being taken, as long as the extension request has been submitted in writing prior to the expiration date.

If a permit has not been obtained after the first extension, additional extensions of 90 days may be granted provided the project has not changed in scope and further provided that the applicant submits this request in writing and pays the approved fee for each requested 90-day extension

**Exception:** Written extensions shall not be required for any project that has been approved by the City, and the approval contains an express condition stating that approval from an outside agency is pending at time of expiration. This exception shall apply only until such time as the outside agency approval is granted. Thereafter, the expiration limitation shall apply.

Section 105.5 is hereby amended to read as follows:

105.5 Expiration of Permits. Every permit issued by the building official under the provisions of the technical codes shall expire and become null and void, if the project authorized by such permit has not achieved an approval for one of the required

inspections identified in Section 110.3 of the 2010 California Building Code within one year of such permit.

The building official may grant a one-time permit extension of 180 days provided the applicant submits a request in writing prior to the permit expiration and the project has not changed in scope. If a permit has not been obtained after the first extension, additional extensions of 90 days may be granted provided the project has not changed in scope and further provided that the applicant submits this request in writing and pays the approved fee for each requested 90-day extension

Before work can commence or recommence under an expired permit, a new permit application must be submitted and permit obtained along with all applicable fees for this new project.

All existing projects are subject to this section and will be subject to the conditions listed above.

## **Section 1505.1.1** is hereby amended to read as follows:

Real coverings within all fire hazard severity zones. Any new roof on a new or existing structure and any re-roofing of an existing structure of 50% or more of the total roof area within a one-year period shall be of a fire retardant roof or Class "A" roof.

## **ARTICLE 3 – RESIDENTIAL CODE**

Division 2—Amendments to the California Residential Code

Section R105.3.2 is hereby amended to read as follows:

R105.3.2 Expiration of Plan Review. Applications for which no permit is issued within 180 days following the date of the application shall expire, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the building official. The building official may extend the time for action by the applicant for a period not exceeding 180 days on written request by the applicant showing that circumstances beyond control of the applicant have prevented action from being taken and the extension has been submitted in writing prior to the expiration date.

If a permit has not been obtained after the first extension, additional extensions of 90 days may be granted provided the applicant submits this request in writing and pays the approved fee for each requested 90-day extension and the project has not changed in scope.

**Exception:** If a project has been approved by the City on condition where a pending approval from an outside agency exists at time of expiration, written extensions will not be required.

Section R105.5 is hereby amended to read as follows:

R105.5 Expiration of Permits. Every permit issued by the building official under the provisions of the technical codes shall expire and become null and void, if the project authorized by such permit has not achieved an approval for one of the required inspections identified in section 110.3 of the 2010 California Building Code within one year of such permit.

The building official may grant a one-time permit extension of 180 days provided the applicant submits a request in writing prior to the permit expiration and the project has not changed in scope. Additional extension requests of 90 days each may be granted by the building official if the request is made in writing, the project has not changed in scope, the project has obtained at least one inspection approval and the applicant pays the approved fee for each 90-day extension.

Before work can commence or recommence under an expired permit, a new permit application must be submitted and permit obtained along with all applicable fees applied for this new project.

All existing projects are subject to this section and will be subject to the conditions listed above.

Section R313.2 is hereby amended to read as follows:

Section R313.2 One-and two-family dwellings automatic fire systems. New one- and two-family dwellings, an automatic residential fire sprinkler system shall be installed, or to which additions, alterations, or repairs are made that involve the removal or replacement to 50% or greater of the linear length of walls of the building (exterior plus interior) within a one-year period shall meet the requirements of new construction or this code.

Exception: (1) One-and two-family dwelling buildings with less than 1,500 square feet where an addition will not increase the total square footage to more than 1,500 square feet, unless the increase involves a second story (in this case, the 50% linear wall length rule would apply to determine if the project would need an automatic fire sprinkler system).

Section R403.1.3 is hereby amended to read as follows:

**R403.1.3 Seismic reinforcing.** Concrete footings located in Seismic Design Categories D0, D1 and D2, as established in Table R301.2(1), shall have minimum reinforcement of at least two continuous longitudinal reinforcing bars not smaller than No. 4 bars. Bottom reinforcement shall be located a minimum of 3 inches (76 mm) clear from the bottom of the footing.

In Seismic Design Categories D0, D1, and D2 where a construction joint is created between a concrete footing and a stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1,219 mm) on center. The vertical bar shall extend to 3



inches (76 mm) clear of the bottom of the footing, have a standard hook and extend a minimum of 14 inches (357 mm) into the stem wall.

In Seismic Design Categories D0, D1 and D2 where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1,219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing and have a standard hook.

In Seismic Design Categories D0, D1 and D2 masonry stem walls without solid grout and vertical reinforcing are not permitted.

**Exception:** In detached one- and two-family *dwellings* that are three stories or less in height and constructed with stud bearing walls, isolated plain concrete footings supporting columns or pedestals are permitted.

Section R902.1.1 is hereby amended to read as follows:

Real coverings within all fire hazard severity zones. Any new roof on a new or existing structure, and any re-roofing of an existing structure of 50% or more of the total roof area within a one-year period shall be of a fire retardant roof or Class "A" roof.

#### ARTICLE 4 – PLUMBING CODE

Division 3—Amendments to the California Plumbing Code

Section 710.1 is hereby amended to read as follows:

In every case where the outlet of a trap for a plumbing fixture is installed or located at an elevation which is less than two feet above the rim of the nearest manhole uphill from the point of connection of the building sewer to the public sewer in any new or existing drainage system, approved types of backwater valve, relief vent and cleanout approved shall be installed in the building sewer at the point of lowest elevation of the ground surface of the building site outside of the building or at such other location as is permitted by the Building Inspector, providing that at any such location, the elevation of the ground surface is not less than two below the lowest trap outlet served by the building sewer.

The installation shall consist of an approved fresh air inlet and a Y branch or combination fitting installed in sequence in the line of flow from the building. The vent from this fresh air inlet shall be piped to the ground surface and capped with a vent cap. Provision shall be made by elevation above the ground or by other means for preventing the obstruction of the vent opening or the flow of water therein. The cleanout shall be placed as close to the valve as is practical and shall be piped to within one foot of the ground surface and closed with an approved cleanout plug. Every existing installation which includes a plumbing fixture trap outlet which is less than two feet above the rim of the nearest manhole uphill from the point of connection of the building sewer to the public sewer is hereby declared to be dangerous, unsanitary and a menace to life, health and property. Whenever it shall come to the attention of the Building Inspector that such an installation exists, he or she is hereby empowered to order and require that such plumbing

outlet be immediately plugged or capped, or that the equipment described in the preceding paragraph of this section be installed immediately.

Section 18.32.010 of the Pacific Grove City Code is hereby amended by deleting the current Section 18.32.010 in its entirety and replacing it to read as follows:

SECTION 3. Section 18.04.100 of the Pacific Grove City Code is hereby deleted.

SECTION 4. Section 18.32.010 of the Pacific Grove Municipal Code is amended by deleting the current Section 18.32.010 in its entirety and replacing it with the text set forth below as follows:

18.32.010 Adoption of Fire Code.

#### ARTICLE 1 - FIRE CODE

#### 18.32.010 Amendments to the Fire Code

The International Fire Code as adopted under Section 18.32.010 is amended and changed in respect of the following sections set forth therein:

The California Fire Code is amended as follows:

Section 101.1 is amended to read as follows:

**101.1 Title.** These regulations shall be known as the Fire Code of The City of Pacific Grove.

Section 109.3 is amended to read as follows:

109.3 Violation Penalties. Persons who shall violate any provision of this code or shall fail to comply with any of the requirements thereof or shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of an infraction, punishable by the approved fine. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section 202 is amended to add the following definitions:

ALL WEATHER SURFACE. A road surface constructed to the minimum standards adopted by the jurisdiction.

Section 304 and 305 are amended to read as follows:

Section 304 - Combustible Materials

#### Storage and Accumulation of Rubbish and Vegetation

**304 Rubbish within Dumpsters.** In all rooms or above outside areas, adjacent to building or underneath roof overhangs or when located nearer than 10 feet to adjacent property line, used for storage of combustible waste materials in other than Group R, Division 3 occupancies shall be protected by automatic sprinkler protection. Such sprinklers may be connected to the domestic water supply, provided sufficient coverage

of the area is provided and an approved accessible shutoff valve is provided for each room or area.

**Exception:** (1) Trash areas adjacent to solid brick or concrete walls with no openings or eaves are not required to be protected by automatic sprinkler system(s).

Section 307 is amended to read as follows:

Section 307 - Incinerators, Open Burning and Commercial Barbecue Pits

#### **Open Burning**

**307 General.** Open burning shall be prohibited including outdoor rubbish fires and bonfires, unless: 1) the fire is confined to an approved container as defined by the Uniform Mechanical Code and authorized by the Monterey Bay Air Pollution Control District; 2) the open fire is for the explicit purpose of preparation of food, such as in the case of a luau, barbecue, and the like; or 3) a special condition or circumstance exists and written authorization is granted by the Chief.

Section 503 is added as follows:

Section 503 – Fire Apparatus Access

Section 503.2.1 is added as follows:

**503.2.1 Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).

BRIDGE. A structure to carry a roadway over a depression or obstacle.

Section 503.2.6.1 is added to read as follows:

**503.2.6.1 Private Bridge Engineering.** Every private bridge hereafter constructed shall meet the following engineering requirements:

- a. The weight shall be designed for a minimum of HS-20 loading as prescribed by the AASHTO.
- b. The unobstructed vertical clearance shall be not less than 15 feet clear.
- c. The width shall be a minimum of 20 feet clear. The fire code official may require additional width when the traffic flow may be restricted or reduce the width to a minimum of 12 feet for Occupancy Group U or R-3 occupancies.
- d. The maximum grade change of the approach to and from any private bridge shall not exceed 8% for a minimum distance of 10 feet.

Section 503.2.6.2 is added to read as follows:

503.2.6.2 Private Bridge Certification. Every private bridge hereafter constructed shall be engineered by a licensed professional engineer knowledgeable and experienced in the engineering and design of bridges. Certification that the bridge complies with the design standards required by this code and the identified standards, and that the bridge was constructed to those standards, shall be provided by the licensed engineer, in writing, to the fire code official. Every private bridge, including existing and those constructed under this code, shall be certified as to its maximum load limits every 10 years or whenever deemed necessary by the fire code official. Such recertification shall be by a licensed professional engineer knowledgeable and experienced in the engineering and design of bridges. All fees charged for the purpose of certification or recertification of private bridges shall be at the owner's expense.

Section 503.2.7 is amended to read as follows:

**503.2.7 Grade.** The grade of fire apparatus access roads shall be no greater than 15% unless specifically approved by the fire code official.

Section 503.2.7.1 is added to read as follows:

**503.2.7.1 Paving.** All fire apparatus access roads over 8% shall be paved with a minimum 0.17 feet of asphaltic concrete on 0.34 feet of aggregate base. All fire apparatus access roads over 15% where approved shall be paved with perpendicularly grooved concrete.

Section 505 is added to read as follows:

Section 505 - Premises Identification

505.1 Address Identification. New buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Large complexes or multiple buildings shall have their address posted so that it is visible from the street.

Section 506.1 is amended to read as follows:

**506.1** Where Required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to required a key box or other approved emergency access device to be installed in an approved location. The key box or other approved emergency access device shall be of an approved type and shall contain keys or other information to gain necessary access as required by the fire code official.

Section 507.5.2 is amended to read as follows:

507.5.2 Inspection, Testing and Maintenance. Fire hydrant systems shall be subject to periodic tests as required by the fire code official. Fire hydrant systems shall be

maintained in an operative condition at all times and shall be repaired where defective. Additions, repairs, alterations and servicing shall comply with approved standards. When required by the fire code official, hydrants shall be painted in accordance with the most current edition of NFPA 291.

Section 603.6.6 is added to read as follows:

**603.6.6 Spark Arresters.** An approved spark arrester shall be installed on all chimneys, incinerators, smokestacks or similar devices for conveying smoke or hot gases to the outer air.

Section 901.1.1 is added to read as follows:

**901.1.1 Responsibility.** The owner of the protected premises shall be responsible for all fire protection systems within the protected premises, whether existing or installed under this code.

Section 901.4 is amended to read as follows:

901.4 Installation. Fire protection systems shall be maintained in accordance with the original installation standards for that system. All systems shall be extended, altered, or augmented as necessary to maintain and continue protection whenever the building is altered, remodeled or added to. Alterations to the fire protection systems shall be done in accordance with applicable standards.

Section 901.4.5 is added to read as follows:

901.4.5 Nonoperational Equipment. Any fire protection equipment that is no longer in service shall be removed.

Section 901.7 is added to read as follows:

901.7 Systems out of Service. Where a required fire protection system is out of service, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shutdown until the fire protection system has been returned to service.

Section 903 is amended to read as follows:

Section 903 - Fire Sprinklers

Section 903.2 is amended to read as follows:

903.2 Where Required. Approved automatic sprinkler systems shall be provided in all new buildings and structures constructed, moved into or relocated within the jurisdiction.

Exceptions:

(1) Structures not classified as Group R occupancies and not more than 500 square feet in total floor area.

The following sections are amended by changing requirements to 500 square feet for fire sprinkler installation, as follows (the complete text of the section is not provided):

- 903.2.1.1 Group A-1. Change 12,000 square feet to 500 square feet.
- 903.2.1.2 Group A-2. Change 5,000 square feet to 500 square feet.
- 903.2.1.3 Group A-3. Change 12,000 square feet to 500 square feet.
- 903.2.1.4 Group A-4. Change 12,000 square feet to 500 square feet.
- 903.2.1.5 Group A-5. Change 1,000 square feet to 500 square feet.
- 903.2.3 Group E. Change 12,000 square feet to 500 square feet.
- 903.2.4 Group F-1. Change 12,000 square feet to 500 square feet. Change 2,500 square feet for woodworking operations to 500 square feet.
- 903.2.7-1 Group M. Change 12,000 square feet to 500 square feet.
- 903.2.7-3 Group M. Change 24,000 square feet to 500 square feet.
- 903.2.9 Group S-1. Change 12,000 square feet to 500 square feet.
- 903.2.9.1 Repair Garages. Change 10,000 square feet (2 story buildings) and 12,000 square feet (1 story buildings) to 500 square feet.
- 903.2.9.2 Bulk storage of tires. Change 20,000 cubic feet to 500 square feet.

#### Section 903.2.8 is amended to read as follows:

903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided in all buildings with a Group R fire area, including, but not limited to, one-and two-family dwellings, town homes, and manufactured homes and mobile homes located outside of licensed mobile home parks hereafter constructed, moved into or relocated within the jurisdiction, including all additions to buildings already equipped with automatic fire sprinkler systems.

#### Section 903.3.1.1.2 is added to read as follows:

- 903.3.1.1.2 Elevators. Automatic fire sprinklers shall not be installed at the top of passenger elevator hoist ways or in the associated passenger elevator mechanical rooms.
- 903.3.1.1.2.1 Where automatic fire sprinklers are not installed at the top of passenger elevator hoist ways, heat detectors for the shunt trip mechanism shall not be installed, nor shall smoke detectors for elevator recall be installed.
- 903.3.1.1.2.2 Where automatic fire sprinklers are not installed in associated elevator mechanical rooms, heat detectors for the shunt trip mechanism shall not be installed. A smoke detector shall be installed for elevator recall.

#### Section 903.3.1.3 is amended to read as follows:

- 903.3.1.3 NFPA 13D Sprinkler Systems. Where allowed, automatic sprinkler systems installed in one-and two-family dwellings shall be installed throughout in accordance with NFPA 13D.
- 903.3.1 .3.1 All fire sprinkler systems installed in one-and two-family dwellings shall

be tested for leakage by undergoing a hydrostatic test made at 200 psi for two-hour duration.

903.3.1.3.2 Each water system supplying both domestic and fire protection systems shall have a single indicating-type control valve, arranged to shut off both the domestic and sprinkler systems. A separate shut-off valve for the domestic system only shall be permitted to be installed. The location of the control valve shall be approved by the fire code official.

903.3.1.3.6 Local water flow alarms shall be provided on all sprinkler systems. Local water flow alarms shall be powered from the main kitchen refrigerator circuit. The local water flow alarm shall be clearly audible from within the master bedroom at an audibility level of not less than 75 dBa. Where no kitchen exists in the building, the water flow alarm shall be powered from the bathroom lighting circuit.

Section 903.4.1 is amended to read as follows:

903.4.1 Monitoring. Alarm, supervisory and trouble signals shall be distinctly different and shall be automatically transmitted to an approved central station, remote supervising station or proprietary supervising station as defined in NFPA 72-2010, or, when approved by the fire code official, shall sound an audible signal at a constantly attended location.

(Exceptions remain unchanged.)

Section 903.4.2 is amended to read as follows:

903.4.2 Alarms. One exterior approved audible device shall be connected to every automatic sprinkler system in an approved location. Such sprinkler water flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a building fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

Section 903.4.3 is amended to read as follows:

903.4.3 Floor Control Valves. Approved indicating control valves and water flow switches shall be provided at the point of connection to the riser on each floor in all buildings over one story in height, and shall be individually annunciated as approved by the fire code official.

Section 903.6 is amended to read as follows:

903.6 Repairs, Alterations, and Additions. In all buildings, except where otherwise provided herein in this Section, where the total floor area exceeds 5,000 square feet, or which are 40 feet or more in height, or which are three or more stories in height, they shall be made to comply with the provisions of this Section.

In all buildings where the total floor area exceeds 5,000 square feet, or which are 40 feet or more in height, or which are three or more stories in height, if the repairs or alterations

are made exceeding 25% of the current market value of the building and property as shown in the records of the County Assessor within any 360-day period shall be made to comply with the provisions of this section.

Exception: (1) Valuation may also be determined by the replacement costs of the existing structure based upon the most recent "Building Valuation Data" contained in the "Building Standards" magazine published by the International Conference of Building Officials. The intent of this exception is to allow the use of a less restrictive application (if applicable) to determine if repair, alterations, or additions are 25% or more of the value of the building.

#### **Definitions**

Repair. It is the reconstruction or renewal of any part of an existing building or structure for the purpose of its maintenance.

Alteration. It is any change, addition, or modification in construction or occupancy.

Exception: Projects where the sole purpose is for seismic upgrade.

Existing Group R, Division 3 buildings to which additions, alterations, or repairs are made that involve the removal or replacement to 50% or greater of the linear length of walls of the building (exterior plus interior) within a one-year period shall meet the requirements of new construction or this code.

Exception: (1) Group R Division 3 buildings with less than 1,500 square feet where an addition will not increase the total square footage to more than 1,500 square feet, unless the increase involves a second story (in this case, the 50% linear wall length rule would apply to determine if the project would need an automatic fire sprinkler system).

Section 904.11 is added to existing section.

904.11 Non-Conforming Restaurant Cooking Appliances and Fire Extinguishing Systems. All non-conforming restaurant cooking appliances, hood and duct systems, and fire extinguishing systems found to exist as of the effective date of this Ordinance shall be made to conform to the requirements of this Section within 90 days of notification. It shall thereafter be unlawful for any person to maintain or suffer to be maintained any non-conforming restaurant cooking appliance, hood and duct system, or fire extinguishing system on any property owned or controlled by said person within the City of Pacific Grove.

Section 907.7.4 is added to read as follows:

**907.7.4 Zone Transmittal.** Where required by the fire code official, fire alarm signals shall be transmitted by zone to the supervising station and retransmitted by zone to the public fire service communications center.

Section 907.8.2 is amended to read as follows:

907.8.2 Completion Documents. The following documentation shall be provided at the

time of acceptance testing for all fire alarm system installations:

- 1. A record of completion in accordance with NFPA 72.
- 2. A contractor's statement verifying that the system has been installed in accordance with the approved plans and specifications, and has been 100% tested in accordance with NFPA 72.
- 3. A contractor's affidavit of personnel qualifications, indicating that all personnel involved with the installation of the fire alarm system meet the qualification requirements of the fire code official.

Section 907.13 is amended to read as follows:

907.13 Access. Access shall be provided to each fire alarm system component for periodic inspection, maintenance and testing.

Section 3404.4 is added to read as follows:

Section 3404.4 Outdoor Storage of Containers and Portable Tanks. Storage of Class I and Class II liquids in aboveground tanks outside of buildings is prohibited within the limits established by law as the limits of districts in which such storage is prohibited except as permitted by the Zoning Ordinance.

#### **Exceptions:**

- 1. For marine fueling operations, a maximum of 2,000 gallons of diesel fuel may be stored and dispensed from an above ground tank as approved by the Fire Chief.
- 2. Storage tanks of 1,000-gallon maximum capacity may be used only in conjunction with emergency generators as approved by the Fire Chief.

Add the following Appendix to read as follows:

# **APPENDIX M: Standard Fire Conditions for Single Family Dwellings Section M109 - Defensible Space**

M 109.1 Standard defensible space requirements. (FIRE 019) Remove combustible vegetation from within a minimum of 100 feet or to the property line from structures, whichever is closer. Vegetation shall be no taller than 4 inches high. Limb trees 6 feet up from ground. Remove limbs within 10 feet of chimneys. Additional or alternative fire protection approved by the fire code official may be required to provide reasonable fire safety. Environmentally sensitive areas may require alternative fire protection, to be determined by the fire code official and other jurisdictional authorities.

Add the following Appendix to read as follows:

## APPENDIX R: Roofs Section R101 - General

R101 .1 Scope. Applications for the construction or remodel of any buildings shall be subject to the roofing conditions of this appendix when conditioned by the fire code official.

R101.2 Conflicting Sections. Where provisions in this appendix conflict with other

sections of this code or other appendices, the provisions of this appendix shall prevail unless otherwise directed by the fire code official.

## Section R102 - New Buildings

**R102.1** General. (FIRE 026) Roofing requirements for all new buildings shall be a minimum Class "A" roof assembly as defined by the International Building Code.

R102.2 Very High Hazard Severity Zones. (FIRE 027) Roofing requirements for all new buildings in Very High Hazard Severity Zones shall be a minimum Class "A" roof assembly as defined by the International Building Code.

#### Section R103 - Existing Buildings

R103.1 General. (FIRE 026) Roofing requirements for existing buildings when 50% or more of the roof area is reroofed within a one-year period after the issuance of a building permit shall be a minimum Class "B" roof assembly as defined by the International Building Code. Where there is no permit issued, this section is applicable to buildings constructed after the effective date of this code and to buildings where 50% or more of the roof area is reroofed within a one-year period after commencing construction.

R103.2 Very High Hazard Severity Zone. (FIRE 027) Roofing requirements for existing buildings within a very high hazard severity zone when 50% or more of the roof area is reroofed within a one-year period after the issuance of a building permit shall be a minimum Class "A" roof assembly as defined by the International Building Code. Where there is no permit issued, this section is applicable to such buildings constructed after the effective date of this code and to buildings where 50% or more of the roof area is reroofed within a one-year period after commencing construction.

Add the following Appendix to read as follows:

#### **APPENDIX AE: Alternative Energy Systems**

**AE101.1 Scope.** Applications for the installation, additions or remodel of alternative energy system, including but not limited to photovoltaic and wind generation systems, shall be subject to this appendix when conditioned by the fire code official.

**AE101.2 Conflicting Sections.** Where provisions in this appendix conflict with other sections of this code or other appendices, the provisions of this appendix shall prevail unless otherwise directed by the fire code official.

**AE102 Signing and Marking**: All photovoltaic systems shall be permanently marked as specified in this section.

#### AE102.1 Main Service Disconnect.

a. Main Panel Exterior Marking. A placard is required to be permanently affixed to the main service disconnect panel. The placard shall be red in color with white capital letters at least 3/4" in height and in a non-serif font, to read "SOLAR DISCONNECT INSIDE PANEL." The placard shall be constructed of weather-resistant, durable plastic with engraved letters, or other approved material.

b. Circuit Disconnecting Means Marking. A permanent label is to be affixed adjacent to the circuit breaker controlling the inverter or other photovoltaic system electrical controller. The label shall have contrasting color capital letters at least 3/8" in height and in a non-serif font, to read "SOLAR DISCONNECT." The label shall be constructed of durable adhesive material or other approved material.

## AE102.2 Direct Current (DC) Conduits, Raceways, Enclosures, Cable Assemblies, and Junction Boxes.

- a. Marking is required on all interior and exterior direct current (DC) conduits, raceways, enclosures, cable assemblies, and junction boxes.
- b. Marking Locations. Marking shall be placed on all DC conduits, raceways, enclosures, and cable assemblies every 10 feet, at turns, and above and below penetrations. Marking shall also be placed on all DC combiner and junction boxes.
- c. Marking Content and Format. Marking for DC conduits, raceways, enclosures, cable assemblies and junction boxes shall be red with white lettering with minimum 3/8" capital letters in a non-serif font, to read "WARNING: SOLAR CIRCUIT". Marking shall be reflective, weather resistant, and suitable for the environment. Materials used should be in compliance with UL Standard 969.
- **AE102.3 Secondary Power Sources.** Where photovoltaic systems are interconnected to battery systems, generator backup systems, or other secondary power systems, additional signage acceptable to the fire code official shall be required indicating the location of the secondary power source shutoff switch.
- **AE102.4 Installer Information.** Signage acceptable to the fire code official indicating the name and emergency telephone number of the installing contractor shall be required to be installed adjacent to the man disconnect.

## AE102.5 Inverters. No markings are required for inverters.

AE102.6 AC Photovoltaic Systems. AC Photovoltaic Systems shall be marked as specified in this section.

- a. Main Panel Exterior Marking. A placard is required to be permanently affixed to the car service disconnect panel. The placard shall be red in color with white capital letters at least 3/4" in height and in a non-serif font, to read "SOLAR DISCONNECT INSIDE PANEL." The placard shall be constructed of weather resistant, durable plastic with engraved letters, or other approved material.
- b. Circuit Disconnecting Means Marking. A permanent label is to be affixed adjacent to the circuit breaker controlling the inverter or other photovoltaic system electrical controller. The label shall have contrasting color capital letters at least 3/8" in height and in a non-serif font, to read "SOLAR DISCONNECT." The label shall be constructed of durable adhesive material or other approved material.

## **AE103 Building Mounted Photovoltaic Systems**

AE103.1 All building-or roof-mounted photovoltaic systems shall be installed as specified in this section.

- a. Access, Pathways, and Smoke Ventilation. Access and spacing requirements shall be observed to ensure emergency access to the roof, provide pathways for specific areas of the roof, provide for smoke ventilation opportunity areas, and provide emergency egress from the roof.
- b. Exceptions. Exceptions to the requirements in this section shall be permitted to be granted by the fire code official where access, pathway or ventilation requirements are reduced due to any of the following circumstances:
  - (1). Proximity and type of adjacent exposures.
  - (2). Alternative access opportunities, as from adjoining roofs.
  - (3). Ground level access to the roof.
  - (4). Adequate ventilation opportunities below solar arrays.
  - (5). Adequate ventilation opportunities afforded by module set back from other rooftop equipment.
  - (6). Automatic ventilation devices.
  - (7). New technologies, methods, or other innovations that ensure adequate fire department access, pathways, and ventilation opportunities.
- c. Designation of ridge, hip, and valley does not apply to roofs with 2-in-12 or less pitch.
- d. Measurement Conventions. All roof dimensions shall be measured to centerlines.
- e. Roof Access Points. Roof access points shall be defined as areas where ladders are not placed over openings (windows or doors) and are located at strong points of building construction and in locations where they will not conflict with overhead obstructions (tree limbs, wires, or signs).

## AE103.2 Household Systems (One-and Two-Family Dwellings).

- a. Access and Pathways.
- (1). Hip Roof Layouts. Modules shall be located in a manner that provides one three-foot wide clear access pathway from the eave to the ridge of each roof slope where the modules are located. The access pathway shall be located at a structurally sound location on the building, such as a bearing wall.

Exception: Where adjoining roof planes provide a three-foot wide clear access pathway.

- (2). Single Ridge Layouts. Modules shall be located in a manner that provides two three-foot wide access pathways from the eave to the ridge on each roof slope where the modules are located.
- (3). Hip and Valley Layouts. Modules shall be located no closer than one and one-half feet to a hip or valley if modules are to be placed on both sides of a hip or valley. Where modules are located on only one side of a hip or valley that is of equal length, the modules shall be permitted to be placed directly adjacent to the hip or valley.

b. Ridge Setback. The modules shall be located no higher than one and one-half feet below the ridge.

#### AE103.3 Commercial Systems.

- a. Definition. Commercial Systems shall be defined as all photovoltaic systems installed in any occupancy other than a one and two family dwelling.
- b. Alternative Requirements. Where the fire code official determines that the roof configuration is similar to residential (e.g., townhouses, condominiums, or single-family attached buildings) the fire code official shall be permitted to make a determination to apply the requirements under Section AE 1 03.2, above.
- c. Access. There shall be a minimum six-foot wide clear perimeter around the edges of the roof.
- d. Pathways. Pathways shall be established as follows:
  - (1). Pathways shall be over structural members.
  - (2). Centerline axis pathways shall be provided in both axes of the roof.
- (3). Centerline axis pathways shall run on structural members or Over the next closest structural member nearest to the center lines of the roof.
- (4). Pathways shall be straight line not less than four feet clear to skylights, ventilation hatches, and/or roof standpipes.
- (5). Pathways shall provide not less than four feet of clearance around roof access hatches, with at least a four-foot clear pathway to the parapet or roof edge.
- e. Smoke Ventilation.
- (1). Solar arrays shall be no greater than 150 feet by 150 feet in distance in either axis.
- (2). Ventilator options between array sections shall be (a) a pathway eight feet or greater in width; (b) a pathway four feet or greater in width and bordering on existing roof skylights or ventilation hatches; or (c) a pathway four feet or greater in width and bordering four foot by eight foot (4' X 8') "venting cutouts" every 20 feet on alternating sides of the pathway.

## AE104 Location of Direct Current (DC) Conductors.

- a. Exterior mounted Direct Current conduits, wiring systems and raceways for photovoltaic circuits shall be located as close as possible to the ridge, hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize ventilation opportunities.
- b. Conduit runs between sub-arrays and to DC combiner boxes shall use design guidelines that minimize the total amount of conduit by taking the shortest path from the array to the DC combiner box.
- c. DC combiner boxes shall be located so that conduit runs are minimized in the

pathways between arrays.

- d. DC wiring shall be run in metallic conduit or raceways when located within enclosed spaces in a building and shall be run as follows:
- (1). When run perpendicular or parallel to load bearing members, a minimum teninch space below roof decking or sheathing shall be maintained.
- (2). Where flexible metal conduit (FMC) or metal clad cable (MC) containing PV power circuit conductors is installed across ceilings or floor joists, the raceway or cable shall be protected by guard strips.

AE105 Ground Mounted Photovoltaic Systems

AE105.1 Marking. Marking shall be in accordance with Section AE102, above.

AE105.2 Setbacks. Special setback requirements do not apply to ground-mounted, freestanding photovoltaic arrays. NOTE: The zoning regulations of the jurisdiction regulate setbacks between buildings, accessory structures (possibly including ground-mounted photovoltaic arrays) and property lines.

AE105.3 Clearances. A clear area of 10 feet around ground-mounted photovoltaic installations shall be provided.

AE105.4 Non-Combustible Base. A gravel base or other non-combustible base acceptable to the fire code official shall be installed and maintained under and around the installation.

AE105.6 Fire Sprinkler Protection. Fire sprinkler protection is not required for ground-mounted photovoltaic installations.

SECTION 5. This Ordinance shall take effect on January 1, 2011.

**PASSED AND ADOPTED** BY THE COUNCIL OF THE CITY OF PACIFIC GROVE this 3<sup>rd</sup> day of November, 2010, by the following vote:

AYES: Mayor Garcia, Councilmembers Cohen, Miller, Kampe, Cuneo & Huitt

NOES: None

ABSENT: Councilmember Bennett

APPROVED:

CARMELITA GARCIA, Mayor

ATTEST:

LAWRENCE L. BANGERT, City Clerk

APPROVED AS TO FORM:

DAVID C. LAREDO, City Attorney

#### CITY OF PACIFIC GROVE

Findings: The Pacific Grove City Council hereby finds as follows:

Specific amendments have been established by the City which are more restrictive in nature than those sections adopted by the State of California (State Building Standards Code, and State Housing and Community Development Code) commonly referred to as Title 24 and Title 25 of the California Administrative Code. These "Findings of Fact" are submitted and made a part of this Ordinance pursuant to Sections 17958.5 and section 17958.7 of the California Health and Safety Code.

The amendments to the International Building Code, International Fire Code, and State Fire Code, 2010 editions (published by the International Conference of Building Officials) have been recognized by the City of Pacific Grove to address the fire problems, concerns and future direction by which this City can establish and maintain an environment which will afford a level of Fire and Life Safety to its citizens and quests.

Under the provisions of Section 17922.2 of the California Health and Safety Code, local amendments shall be based on climatic, geographical, or topographical conditions. The Findings of Fact contained herein shall address each of these situations and shall present the local situation which either singularly or in combination causes the established amendments to be adopted.

Profile of the City of Pacific Grove: In 1850, when the State of California became the thirty-first state to join the United States, the City of Pacific Grove had already been a "Charter City" and was so noted under State Law.

The physical location of the City is between the adjacent lands of the City of Monterey, and the City of Carmel. Unincorporated areas of Monterey County fill the remainder of its borders.

The placement of the residential and commercial development within the City of Pacific Grove has generally adopted itself to areas of least resistance, within the confines of ridges, foothills, mesas and canyons. Other unique environmental characteristics include the flatter plains that contain small lakes and the shoreline of Monterey Bay, which creates the boundaries that attract the visitor population.

Throughout the City of Pacific Grove are major roadways and highways that create barriers. Other barriers could be considered the military facilities which includes the United States Army, Presidio of Monterey, United States Naval

Postgraduate School, and the United States Coast Guard Station as well as the Monterey Peninsula Airport.

In June 1981, updated in April 1998 and again in September 2002 the City of Pacific Grove Fire Department and Building Department established certain requirements. These were developed to increase the safety of the citizens and guests, as well as the buildings within its boundaries. The following points were established as causes of concern to the City and are herein established and submitted as the Findings of Fact:

Climatic I: The climate weather patterns within the City of Pacific Grove are considered to be moderately effected by the ocean bodies of the Pacific Ocean and Monterey Bay, which extend the year around growing season of vegetation. The normal year's rainfall is approximately eighteen to nineteen (18-19) inches on the average yearly calendar. Summer conditions, with the prevalent Pacific High Cell create the mid-day fog normally associated with Pacific Grove. This climatic fog assists the natural vegetation in growth.

Later in the year, the winds and drying vegetation mix to create a hazardous fuel condition, which has caused grassland and brushland fires in recent years. While normal temperatures usually do not exceed 75-80 degrees, during late summer and early fall (August, September, October) the temperatures can climb to 100 degrees plus. The afternoon winds can move a fire quickly in the hillsides and canyon areas of the City.

Because of weather patterns and population increases, the City of Pacific Grove (like other California cities) has experienced water rationing and water allocation. Due to storage capacities and consumption, as well as climatic conditions, limited water resources are an issue.

While sound management of the water resources is possible, actual demands on an already stressed water supply can most assuredly be predicted.

<u>Climatic II</u>: The region is within a climate zone that requires compliance with energy efficiency standards for building construction. The amendment adds up-to-date design standards that will add to energy efficiency in construction while maintaining nationally recognized health and safety standards.

<u>Climatic III:</u> The region is within a climate zone within the state of California where electric car sales and use have been mandated. The amendment provides technical standards that address the electrical issues pertaining to alternate energy vehicles.

Geographical I: Residents and visitors alike appreciate the scenic appeal and geographical features of the City of Pacific Grove. The mountains and canyons accent one another, as they

wind around the City. The forested areas along with the lower brushlands give a feel of balance and a sort of backdrop for the City itself. These geographical features establish the roadways and building sites, as well create barriers for accessibility for fire suppression forces.

The forested areas of oak and pines create windbreaks from oncoming winds, while producing fuel from the annual fall leaves which drop to the ground, as well as from decayed trees and branches. The dry vegetation, mountainous terrain and minimal water available tend to cause concern and added fire problems.

The City of Pacific Grove has within its boundaries potentially active seismic hazards with respect to the "Navy," "Berwick Canyon," "Chupines" and "Seaside" faults. While systems have been developed to study and monitor the activity of earthquakes, science has not yet been able to predict (with reliability) the potential for activity on these or any active fault.

Seismic activity within the City occurs yearly with little or no damage, although real potential for damage does exist with these four active faults. New construction may be limited by its respective distance to such faults, and replacement of existing structures could be costly.

The geographical layout of the forested areas creates hazardous conditions when a storm of gale-force winds causes trees to fall onto roadways used for access by Fire Department equipment and personnel. The growing pattern and inherent nature of the Monterey Pine lends itself to being blown over easily. This is due in part to the shallow root system associated with the Monterey Pine tree.

Landslides have also been experienced within the City of Pacific Grove, due to excessive land cuts associated with the roadway systems designed within the City. While stabilization can sometimes be provided, heavy rainfalls have caused failures. These failures have closed roadways within the City, again making accessibility impossible until properly cleared.

Mountains and hills surrounding and within the City of Pacific Grove, create slopes in excess of 60% with an overall average of between five to ten percent throughout (if an average slope were to be accessed). The City of Pacific Grove has a start at sea level and extends to areas in excess of 600 feet above sea level. The elevation change caused by the mountains and hills creates the geographical foundation on which the City has built and will continue to build. With much of the flatlands already built upon, it can be anticipated that future growth will occur on steeper slopes and with greater contrasts in terrain.

Geographical II: The region is located in an area of high seismic activity as indicated by United States Geological Survey and California Division of Mines and Geology. Recent earthquake activity has indicated the lack of flexibility of materials and/or building systems has been a contributing factor to damages that reduced the protection of the life-safety of building occupants and increased the cost of rehabilitation of structures. Activities have indicated the need for increased levels of safety in buildings systems, including but not limited to means of egress, wiring systems and fire protection systems.

<u>Topographical</u>: The topographical element of this report is associated closely with the geographical element noted above. While the geographic features create the topographic conditions, the findings in this section are caused by the construction and design of the City of Pacific Grove, due to the elevation changes, as well as mountains, hills, canyons, lakes, and streams that dissect the City.

The water supply (domestic and fire flow) system is directly effected by the topographic layout. The distribution system consists of water lines that carry the water from storage tanks and dammed areas to the public via pipes. These street mains create lift-zones where the pressure and flows are adequate at lower elevations and minimal, sometimes critical supplies at the top. Water supplies within the City of Pacific Grove vary from less than 250 gallons-per-minute to flows in excess of 5,500 gallons-per-minute. This wide variation causes major problems to development, as well as fire suppression forces.

The roadway system is designed around the topography with respect to narrow, windy, steep grades and overhanging tree branches. The grades on the roadway surfaces exceed 25% and widths of less than twelve (12) feet for access are not uncommon. Due to traffic congestion on many streets, especially the commercial downtown area, vehicles double park for loading and unloading purposes. This creates barriers that reduce response time of fire equipment.

The topography also makes construction more restricted to the level portions of the City with higher concentrations of building in these areas. The existing structures are being removed and replaced with larger, more cost effective buildings. Those existing structures which remain cause concern to the Fire Department because of their lack of adequate fire protection (firewalls, fire extinguishing systems, etc.). The hazard exposure created by these structures poses a separate and significant problem.

It is not uncommon to see a single or two-story building torn down and replaced with a two-, three- or four-story

building. For practical and cost reasons, these new structures are built of wood (Type V). The potential for conflagration exists with the high build out of the various specific areas of Pacific Grove. The concentrated commercial, as well as residential occupancies cause concern regarding the exposure elements of building-to-building and building-to-grassland areas of this City.

The topographical nature of Pacific Grove also lends itself to power failures caused when trees and tree limbs damage sections of electrical transmission lines. These power failures cause the electrical pumps to become inactive, interrupting water supplies. Vehicular accidents also have been known to interrupt this pumping operation. Due to the narrow streets, which are congested with residents and visitors.

The encouragement of greenbelts between various subdivisions of the City has given rise to brush and grass fires for many years. The existing canyons cause natural barriers, and delay response time due to complex roadways.

The natural rocky shorelines of Pacific Grove create a situation by which access to the building can only be made from the street. The front of the building is essentially the only accessibility point for responding firefighters. Built property-line to property-line, these structures create an element of construction of nearly nine blocks of continuous construction. Residential as well as commercial occupancies can be found along the entire shoreline of Monterey Bay.

Lastly, while possibly not being within the "topographical" context of Findings of Fact, the historical significance is a major visitor draw for the City of Pacific Grove. Buildings and roadways have been preserved to create a lasting reminder of what has been.

While many of the historical structures are small and surrounded by landscaped courtyards, etc., some buildings are constructed closer than would be presently allowed under the International Building Code. Construction methods were also less restrictive than would be required today. These structures and settings create barriers which firefighters must work around and protect from exposure. Forty-four to fifty historical buildings, dating back to the early 1800's are irreplaceable.

These Findings of Fact, which identify the various "climatic, geographical, and topographical" conditions, are considered reasonably necessary to modify the requirements established pursuant to Health and Safety Code Section 17922 based upon local conditions.

While it is clearly understood that the adoption of these regulations may not prevent the incidence of fire or building related accidents, implementation of these various regulations

and/or requirements may serve to reduce the severity and potential loss of life and property.

Environmental: The City of Pacific Grove Green Building Program was created and is consistent with the General plan. The program was created to address the local water, air, and land use restrictions. The program when compared to Cal Green as a whole is more restrictive and addresses the local environment.